



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,217	12/17/2004	Shigeru Suzuki	57965US006	7313
32692	7590	09/21/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			NGUYEN, CHAU N	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/519,217

Applicant(s)

SUZUKI ET AL.

Examiner

Chau N. Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/7/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (WO 95/11542) in view of Dewdney (2002/0014349).

Nakamura et al. discloses a cold shrink tube unit comprising an elastic tube member (15) with an opening end and a hollow cylindrical core member (Figures 3-4) removably provided inside a seal region of said elastic tube member, having a predetermined length from said opening end, to hold said seal region in an elastically expanded state, wherein said core member being a slidably detachable core member comprising a body section (31a) defining a hollow cylinder and a sliding section (31b) integrally connected with one axial end of said body section, said sliding section having flexibility permitting it to be turned over and laid on an outer circumferential surface of said body section, the sliding section being formed

adjacent to the body section, and said slidably detachable core member being provided inside said seal region (re claims 1 and 8).

Nakamura et al. does not disclose said body section (or the core member) includes a plurality of plate-like portions capable of being combined with each other to form said hollow cylinder. Dewdney discloses a core member (Figure 8) comprising a plurality of plate-like portions capable of being combined with each other to form a hollow cylinder, a joint portion (38) pivotably connecting the plate-like portions with each other to form the hollow cylinder (re claim 3), and the joint portion being structured to deform under external force to allow the adjoining plate-like portions to be pivoted (re claim 4). It would have been obvious to one skilled in the art to modify the core member of Nakamura et al. to have a plurality of adjoining plate-like portions as taught by Dewdney to avoid the need to unthread the core member from the free end of cable.

3. Claims 1, 2, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in view of Osmani et al. (6,472,600).

Nakamura et al. discloses the invention substantially as claimed except for the core member comprising a plurality of plate-like portions which comprise mutually independent parts, which are provided with engagable end faces capable

of being engage with each other in a form of said hollow cylinder, and which include reinforcing portions formed in peripheral end regions, including said engagable end faces, of said plate-like portions for holding said plate-like portions in a form of said hollow cylinder against an external force, and said reinforcing portions being formed in said engagable end faces, adapted to be engaged with each other, of said mutually adjoining plate-like portions, and respectively including concave and convex configurations detachably fitted with each other.

Osmani et al. discloses a core member (Figures 14 and 18) comprising a plurality of plate-like portions which comprise mutually independent parts, which are provided with engagable end faces capable of being engage with each other in a form of said hollow cylinder, and which include reinforcing portions formed in peripheral end regions, including said engagable end faces, of said plate-like portions for holding said plate-like portions in a form of said hollow cylinder against an external force, and said reinforcing portions being formed in said engagable end faces, adapted to be engaged with each other, of said mutually adjoining plate-like portions, and respectively including concave and convex configurations detachably fitted with each other. It would have been obvious to one skilled in the art to modify the core member of Nakamura et al. to have a plurality of adjoining plate-like portions as taught by Osmani et al. such that the

core member can be removed from cable without pulling the core member through the free end of the cable.

Allowable Subject Matter

4. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chau N Nguyen
Primary Examiner
Art Unit 2831